

## CLAIMS

### What is claimed is:

1. A color level adjusting module for converting and transmitting image data to a printing module, comprising:

5                   a data buffer unit, which receives and temporarily holds the image data;

                  a look-up-table operating unit, which converts the image data into printing data;

                  a selector, which distributes the printing data;

                  a displacement unit, which transmits the printing data according to a predetermined operation clock; and

10                  a data integrated transmission unit, which transmits the printing data to the printing module.

2. The color level adjusting module of claim 1, wherein the image data comprises text and picture information.

3. The color level adjusting module of claim 1, wherein the image data format is gauged by the  
15                  printing command language.

4. The color level adjusting module of claim 1, wherein the type of the printing module is selected from parallel and serial.

5. The color level adjusting module of claim 1, wherein the image data have a color level property.

20                  6. The color level adjusting module of claim 1, wherein the printing data have a color level property.

7. The color level adjusting module of claim 1, wherein the operation clock contains a dot clock

and a video clock.

8. The color level adjusting module of claim 1, wherein the operation frequency of the video clock is an integer multiple of that of the dot clock.

5 9. The color level adjusting module of claim 1, wherein the look-up-table unit has a plurality of address data and a plurality of corresponding conversion data.

10. The color level adjusting module of claim 9, wherein the address data are comprised of binary codes.

11. The color level adjusting module of claim 9, wherein the conversion data are comprised of binary codes.

10 12. A color level adjusting method for converting and transmitting image data to a printing module, comprising the steps of:

reading the image data;

storing the image data;

15 performing a table look-up operation for the image data and converting the image data into printing data; and

performing a printing data transmission operation according to the type of the printing module.

13. The method of claim 12, wherein the printing data transmission operation is executed through a data integrated transmission unit.

20 14. The method of claim 12, wherein the image data comprises text and picture information.

15. The method of claim 12, wherein the type of the printing module is selected from parallel and serial.

16. The method of claim 12, wherein the image data have a color level property.

17. The method of claim 12, wherein the printing data have a color level property.

18. The method of claim 12, wherein the step of reading the image data further includes the step of compiling the image data and performing a half-tone conversion operation.

5        19. The method of claim 12, wherein the format of the image data is gauged by the printing command language.

20. The method of claim 12, wherein the step of transmitting the printing data includes the step of displacing in order the printing data to the printing module.

21. The method of claim 12, wherein the step of transmitting the printing data further includes the  
10    steps of:

          using a characteristic curve of the printing module to convert the printing data; and  
          transmitting the serial data.

22. The method of claim 12, wherein the step of transmitting the printing data further includes the  
steps of:

15        setting an operation clock according to the format of the printing data;  
          converting the printing data into serial data; and  
          displacing in order the printing data according to the operation clock.